

## Abstract

The invention relates to an exhaust system for an internal combustion engine on a vehicle, comprising an exhaust catalyst and a probe arrangement in the region of the exhaust catalyst as component of a lambda regulation device in which the engine is alternately switched between a lean and rich operating region, depending on the probe signals recorded by the probe device. According to the invention, the probe arrangement is embodied as a single, lambda probe, continuously providing probe signals, arranged downstream of the exhaust catalyst, by means of which, in cooperation with the lambda regulation device, the increase of the oxygen content in the exhaust gas flow over the whole duration of the lean operation phase and the decrease in oxygen content in the exhaust gas flow over the whole duration of the rich operation phase are each recorded in relation to an oxygen content comparison value ( $U_0$ ), whereby in both the lean operation phase and the rich operation phase a switching threshold value ( $U_1, U_2$ ;  $U_1, U_2$ ) dependent on oxygen content is given, which, on reaching said value, the lambda regulation device is switched into the other operating region.